

### **REMARKS**

Claims 20-22, 31, 33-42, and 44-58 were pending in the application. Claims 33, 34 and 46-49 are now cancelled without prejudice to Applicant's right to prosecute their subject matter in the present application and in related applications. New claims 59-79 are added. Claims 20, 31, 35, 36, 38-42, 50, 51 and 57 have been amended without any intent of disclaiming equivalents thereof. Accordingly, upon entry of this paper, claims 20-22, 31, 35-42, 44, 45 and 50-79 are pending and presented for consideration.

The Examiner indicates that claims 31, 44, 45 and 58 are allowed and claims 49 and 57 would be allowable if re-written in independent form.

#### **Claim amendments**

Support for amendment to claim 20 can be found throughout the specification, for example, at page 9, lines 2-3; and page 12, lines 16-18. Support for amendment to claims 50 and 51 can be found in the specification, for example, at page 13, line 26 to page 14, line 1. Claims 35, 36, 38, 39, 41, 42 and 57 have been amended to be consistent with amendment made to claim 20. Claims 31 and 40 have been amended to correct informalities.

Applicant has also amended claim 20 to delete one embodiment recited in the Markush group and added new independent claim 59 to recite the deleted embodiment. In addition, Applicant has added new claims 60-76 dependent from claim 59 that corresponds to the claims dependent from claim 20.

Support for new claims 77-79 can be found in the specification, for example, at page 13, line 16.

Applicant respectfully submits that the amendments to the claims do not introduce new matter.

Supplemental Application Data Sheet

Applicant submits together with this response a Supplemental Application Data Sheet to update the inventor and correspondence information for the present application.

The following comments address in order the remaining issues raised in the Office action.

Objections to the Specification

As requested by the Examiner, Applicant has amended the specification to correct a typographical error on page 3 and to be consistent with the pending claims. Therefore, Applicant respectfully requests reconsideration and withdrawal of the objection to the specification.

Claim Objections Under 37 C.F.R. § 1.75(c)

The Examiner objects to claim 48 as being in improper dependent form for failing to further limit the subject matter of a previous claim. Without acquiescing to the objection, and solely to advance prosecution, Applicant has cancelled claim 48; the objection with respect to claim 48 is therefore moot.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 34-36 and 46 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner asserts that “the antibody” recited in claims 35 and 36 lacks antecedent basis. Applicant has amended claims 35 and 36 to depend from claim 20 in which proper antecedent basis for “the antibody” is found.

The Examiner also asserts claims 34 and 46 have an improper Markush group. Without acquiescing to the rejection, and solely to advance prosecution, Applicant has cancelled claims 34 and 46; the rejection with respect to claims 34 and 46 is therefore moot.

Accordingly, in view of the foregoing amendments and remarks, Applicant respectfully requests that the rejections of claims 34-36 and 46 under 35 U.S.C. § 112, second paragraph, be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 33, 34, 46 and 47 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Specifically, the Examiner maintained his rejection of the term “bead” recited in claims 33, 34, 46 and 47 as improperly broadening the scope of the nature of the bead because, according to the Examiner, the beads are specifically disclosed as being “of polystyrene” and “having a diameter of about 5 mm” in the specification at page 13, line 29. The Examiner, however, acknowledged that the disclosed polystyrene beads with certain size in the specification at page 13, line 29, are exemplary embodiments. The Examiner also maintained his rejections of the terms “gel” and “sheet” recited in claims 34 and 46 for lack of sufficient support. Applicant traverses the Examiner’s rejections of claims 33, 34, 46 and 47. However, in order to advance prosecution of the present application, Applicant has cancelled claims 33, 34, 46 and 47 in favor of allowable subject matter without acquiescing to the rejections and without prejudice; the rejections with respect to claims 33, 34, 46 and 47 are therefore moot. Applicant may pursue the cancelled subject matter in a continuation application.

Claims 20-22, 33-42, 46, 48 and 50-56 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. Claims 33, 34, 46, 47 and 48 have been cancelled without acquiescing to the rejection and without prejudice; the rejection with respect to claims 33, 34, 46, 47 and 48 is therefore moot. Applicant traverses the rejection to the extent it is maintained over claims 20-22, 35-42 and 50-56 as amended.

The Examiner asserts that the term “reagent” recited in claim 20 is not supported because, according to the Examiner, the specification has disclosed no reagent for binding protein S at a site distinct from the first site other than an antibody or its fragment. Without

acquiescing to the rejection, and solely to advance prosecution of the present application, Applicant has amended claim 20 to recite “a reagent comprising an antibody or a fragment thereof that specifically binds protein S at a site distinct from the first site.” Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 20 and claims 21, 22, 35-42, 50, and 52-56 dependent therefrom.

Since previously pending claim 20 has been re-written into claim 20 and claim 59, Applicant respectfully submits that in view of the above amendments and remarks, claim 59 and its dependent claims 60-76 should be allowable as well.

The Examiner also asserts that the terms “dextran,” “polyacrylamide,” “nitrocellulose” and “nylon” recited in claims 50-51 are broader than originally disclosed. According to the Examiner, “dextran,” “polyacrylamide,” “nitrocellulose” and “nylon” are limited to being “cross-linked” as disclosed in the specification, at page 13, lines 26-31. The Examiner further asserts that “nitrocellulose” and “nylon” are also limited to being in “web” form as disclosed at page 13, line 31.

Applicant respectfully disagrees with the Examiner’s reading of the specification. As set forth on page 13, lines 26-32, the specification states: “Useful solid matrices are well known in the art and are composed of water insoluble materials, such as cross-linked dextran . . . polyvinyl chloride, polystyrene, cross-linked polyacrylamide, nitrocellulose- or nylon-based webs, such as sheets, strips or paddles.” [Emphasis added] Applicant submits that the present application clearly and unambiguously discloses that materials suitable for the invention include useful matrices that are well known in the art and are composed of water insoluble materials. As the Examiner acknowledged in the Office action, for example, at page 7, the recitation of “such as” in the specification indicates that all embodiments listed following “such as” are disclosed as exemplary embodiments. Therefore, Applicant submits that all exemplary embodiments, including materials and structures, following “such as” are disclosed for illustration purposes only and are not intended to limit the scope of the invention in any way. Moreover, contrary to

what Examiner suggested, the exemplary embodiments “nitrocellulose- or nylon-based webs” disclosed at page 13, line 31, are not modified by “cross-linked.” The term “cross-linked” at page 13, line 31, should be read only to modify “polyacrylamide” immediately following “cross-linked.”

In order to advance prosecution of the present application, Applicant has amended claims 50 and 51 to specifically recite “cross-linked dextran” and “cross-linked polyacrylamide.” Applicant however wishes to emphasize that all exemplary materials and structures disclosed in the specification at page 13 and recited in claims 50 and 51 are preferred embodiments of the invention. They are not intended and should not be interpreted to limit the scope of the invention in any way.

With regard to the Examiner’s assertion that the recitation of “nitrocellulose” and “nylon” should be limited to web form in claims 50 and 51, Applicant submits that claims 50 and 51 relate to carrier materials not structures. As Examiner acknowledged in the Office action at page 7, “webs” are exemplary structures that can be made of nitrocellulose or nylon materials. Therefore, Applicant submits that it would be improper to recite a structural feature in claims 50 and 51.

Accordingly, in view of the foregoing amendments and remarks, Applicant respectfully requests all rejections of claims 20-22, 33-42, 46, 48 and 50-56 under 35 U.S.C. § 112, first paragraph, be reconsidered and withdrawn.

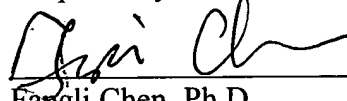
**CONCLUSION**

Applicant believes that all objections and rejections have been overcome and claims 20-22, 31, 35-42, 44, 45 and 50-79 are in condition for allowance. The Examiner is invited to telephone the undersigned agent to discuss any remaining issues. Early and favorable actions are respectfully solicited.

Date: April 19, 2005  
Reg. No. 51,551

Tel. No.: (617) 261-3198  
Fax No.: (617) 261-3175  
Customer Number: 022832

Respectfully submitted,



Fangli Chen, Ph.D.

Agent for Applicant

Kirkpatrick & Lockhart Nicholson Graham LLP  
75 State Street  
Boston, Massachusetts 02109